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Serial No. 10/722,874
Response to Official Action

In the Drawings

There are no amendments to the drawings.

Remarks

Applicant has amended Claims 38 and 74; and cancelled Claims 48, 53 and 55. Applicant respectfully submits that no new matter was added by the amendment, as all of the amended matter was either previously illustrated or described in the drawings, written specification and/or claims of the present application. Entry of the amendment and favorable consideration thereof is earnestly requested.

Claims 38 and 74

Claim 38 requires a sensor that senses a distance between the vehicle axle and the vehicle frame and generates a signal indicative thereof, the sensor comprising a transducer selected from the group consisting of: an optical sensor, a hall effect sensor, a magnetic sensor, a variable resistance sensor, ultrasonic sensor and combinations thereof, and a motor coupled to the plate via a gearing for selectively moving the plate in a first rotational direction and a second rotational direction opposite to the first rotational direction based on the signal. Claim 74 requires a motor coupled to the plate via a gearing for selectively moving the plate in a first rotational direction and a second rotational direction opposite to the first rotational direction, and a controller receiving the position signal and the ride height signal, and controlling movement of the plate in the first and second directions with said motor and gearing according to the ride height signal.

Applicant respectfully submits that none of the cited prior art references disclose or teach these limitations. The Examiner has stated that U.S. Patent No. 2,544,448

("Downey") "teaches a motor operated valve in which an electrical motor 17, comprising a worm gear 166 and coupled to a valve 10 via a valve shaft 11, rotates the valve 10 between positions." (Official Action, 7/5/06 p. 3.) However, as amended, Claim 38 requires that the motor be coupled to the plate via a gearing and that the plate is movable in a first rotational direction and a second rotational direction opposite to the first rotational direction. Downey fails to disclose or teach this limitation. For example, Downey uses "irreversible . . . reduction gearing" for coupling the motor to the valve. (Col. 5, lines 60-67.) In fact, this irreversible feature was highlighted as a primary feature of the invention where Downey states "an electric motor coupled to said shaft, said motor including irreversible speed reducing gearing means supporting said motor from said housing." (Col. 8, line 75 – Col. 9, line 3) (emphasis added.) Accordingly, while Downey states that the "motor 17 is preferably a reversible electric motor", in each embodiment in which gearing is utilized, Downey specifically teaches that the gearing is non reversible. The valve system disclosed in Downey is not applied to a height control system for a vehicle, nor is the system applied to any type of two-way or multidirectional fluid control. Rather, Downey is broadly described "to provide an electric operator for valves" with one application including use in "an airplane fuel line." (Col. 1, lines 3-5; Col. 5, lines 35-36.) Accordingly, Downey fails to teach or suggest a gearing that may rotate the valve in multiple opposing directions.

It is well settled that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the

desirability of the combination. See, e.g., MPEP 2143.01 ("The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."); *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (fact that prior art "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so."). In the present case, Applicant respectfully submits that, while the Examiner has submitted that the combination of U.S. Published Application No. 2002/0096840 ("Sulzyc") with U.S. Patent No. 2,905,430 ("Deist") and Downey is obvious because it would "give the controller more accurate control over the rotation of the valve plate", Applicant finds no mention or teaching in any of the cited references to support this conclusion. (Official Action 7/5/06, p. 3.) In fact, Deist appears to teach away from this suggestion. For example, the primary teaching of Deist is an assembly providing a "time delay or damping mechanism." (See, Col. 1, line 70 – Col. 2, line 17; See also, FIG. 3.) Nowhere does Deist teach or suggest that "more accurate control over the rotation of the valve plate" is required or even desired. Rather, Deist teaches that a less responsive system is desired "to prevent excessive operation of the valve." (Col. 2, line 7.)

Applicant further submits that "[t]here must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d, 1443, 1447 (Fed. Cir. 1992). See also

In re Vaeck, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991) (suggestion to combine must be found in the prior art, not the applicant's disclosure). In the present case Applicant submits that the Examiner has not provided any motivation found in the prior art to combine the numerous references used to generate this obviousness rejection. Rather, it appears that the Examiner is using the present application and claims as a roadmap to pick and choose among the individual elements from the prior art references. See, *Symbol Technologies, Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1576 (Fed. Cir. 1991) ("We do not pick and choose among the individual elements of assorted prior art reference to recreate the claimed invention" but rather, we look for "some teaching or suggestion in the references to support their use in a particular claimed combination.") (emphasis added).

Applicant further respectfully submits that the Deist cannot function with Downey. For example, the electric motor control of Downey is based on physical connection of a contact plate with the various contact rings, which are variously positioned in the housing. (See, Col. 3, lines 13-41; See also FIGS. 2-4.) Depending upon the positioning of the brush contacts to the contact rings (which are positioned 360 degrees around the housing) the motor will actuate. (See, Col. 3, lines 57-73.) This type of control system simply cannot be used in a vehicle height control system because the degree of rotation of the shaft corresponding to the change in vehicle height is relatively small, (e.g. the degree of rotation taught in Deist is at maximum 90 degrees as shown in FIG. 4.) Therefore, the control system for controlling the actuation of the motor in Downey simply

could not be used in a vehicle height control system. MPEP 2143.01; *In re Gordon*, 733 F.2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984) (If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.) In addition, Deist teaches that the system “is of simple, relatively uncomplex construction”, however, the modifications and combinations suggested by the Examiner would result in a system that is decidedly more complex, thereby abandoning this object of the invention. (Col. 2, lines 9-10.)

Applicant still further respectfully submits that the sensor system taught in U.S. Patent No. 4,817,922 (“Hovance”) cannot be used with the control system disclosed and taught in Deist and Downey. For example, Hovance teaches use of a variable output signal given off by the receiver that is proportional to the distance from the transmitter/receiver to the reflector, however, this control signal could not be used to control the motor of Downey nor is there any controller taught in Deist or Sulzyc et al. that can perform this function. (See, Hovance Abstract.) Rather, the only means taught in any of the cited references for controlling the motor of Downey is not usable with a transducer sensor as required by the pending claims.

Claim 56

Applicant notes that Claim 56 is rejected under 35 U.S.C. §103(a) over Sulzyc et al., Deist, Downey and Hovance in view of U.S. Patent No. 6,257,597 (“Galazin”). Ap-

plicant notes that the same arguments relating to the combination of Deist, Downey, Hovance and Sulzyc et al. apply.

It is well settled that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01; *In re Gordon*, 733 F.2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984). In the present case, Applicant respectfully submits that Deist is directed toward a rotational height control valve that provides damping to minimize excessive actuation of the valve, while Galazin is a piston and plunger type of valve arrangement. (See, FIG. 3; Col. 5, lines 18-40.) The primary teaching of Deist is the damping assembly, which could not be used with Galazin as the damping assembly cannot work with a piston and plunger type of valve arrangement. (See, Deist Col. 1, line 70 – Col. 2, line 17 & FIG. 3.) Alternatively, Galazin uses the “shaft 88”, which extends from the piston and plunger valve assembly for control with the brake, which could not be used with Deist. (See, Galazin Col. 5, lines 18-40 and Col. 6, lines 41-51 & FIG. 3.) When considering a reference, the reference must be considered for its teachings as a whole and it is inappropriate to pick and choose various elements from the references without regard to what the references teach as a whole. *In re Arkley*, 455 F.2d 586, 587-88, 172 U.S.P.Q. 524, 526 (C.C.P.A. 1972). In the present case, Applicant respectfully submits that the references as a whole teach away from combination as the objectives of each reference are incompatible with each other due to the vastly different configurations of the valve assemblies.

It is also well settled that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. See, e.g., MPEP 2143.01 ("The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."); *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (fact that prior art "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so."). In the present case, Applicant respectfully submits that Deist and Galazin are completely different valve configurations and the teachings of each are mutually exclusive, providing no motivation to combine as suggested by the Examiner.

"There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself." *In re Oetiker*, 977 F.2d, 1443, 1447 (Fed. Cir. 1992). See also *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991) (suggestion to combine must be found in the prior art, not the applicant's disclosure). In the present case, Applicant respectfully submits that as the primary teachings of the references themselves are incompatible with each other, Applicant submits that the only motivation for such a combination are the presently pending claims.

Accordingly, Applicant respectfully requests the Examiner to withdraw the rejections in view of the above-listed Amendments and Remarks. It is respectfully submitted that claims 38-47, 49-52, 54 and 56-76, all of the claims remaining in the application, are in order for allowance and early notice to that effect is respectfully requested.

Respectfully submitted,

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